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FOREWORD

The translation of an education philosophy with its stated goals and purposes into a program of learning activities that is of value to pupils with their many and varied abilities is both difficult and challenging. Certainly, it requires the collective efforts of all persons and organizations who have a hand in the determination of the curriculum; and, ultimately, the final responsibility for the provision of quality educational programs rests with the local school district.

To aid local school districts in meeting this responsibility, a committee was formed to develop a curriculum design that would reflect the philosophy of the Department of Public Instruction and would serve as a source of information and discussion. This publication is a result of this committee's work.

PAUL F. JOHNSTON
State Superintendent of Public Instruction

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185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 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| 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 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185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 | 1072 | 1073 | 1074 | 1075 | 1076 | 1077 | 1078 | 1079 | 1080 | 1081 | 1082 | 1083 | 1084 | 1085 | 1086 | 1087 | 1088 | 1089 | 1090 | 1091 | 1092 | 1093 | 1094 | 1095 | 1096 | 1097 | 1098 | 1099 | 1100 | 1101 | 1102 | 1103 | 1104 | 1105 | 1106 | 1107 | 1108 | 1109 | 1110 | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 1120 | 1121 | 1122 | 1123 | 1124 | 1125 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1132 | 1133 | 1134 | 1135 | 1136 | 1137 | 1138 | 1139 | 1140 | 1141 | 1142 | 1143 | 1144 | 1145 | 1146 | 1147 | 1148 | 1149 | 1150 | 1151 | 1152 | 1153 | 1154 | 1155 | 1156 | 1157 | 1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 | 1183 | 1184 | 1185 | 1186 | 1187 | 1188 | 1189 | 1190 | 1191 | 1192 | 1193 | 1194 | 1195 | 1196 | 1197 | 1198 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 | 1218 | 1219 | 1220 | 1221 | 1222 | 1223 | 1224 | 1225 | 1226 | 1227 | 1228 | 1229 | 1230 | 1231 | 1232 | 1233 | 1234 | 1235 | 1236 | 1237 | 1238 | 1239 | 1240 | 1241 | 1242 | 1243 | 1244 | 1245 | 1246 | 1247 | 1248 | 1249 | 1250 | 1251 | 1252 | 1253 | 1254 | 1255 | 1256 | 1257 | 1258 | 1259 | 1260 | 1261 | 1262 | 1263 | 1264 | 1265 | 1266 | 1267 | 1268 | 1269 | 1270 | 1271 | 1272 | 1273 | 1274 | 1275 | 1276 | 1277 | 1278 | 1279 | 1280 | 1281 | 1282 | 1283 | 1284 | 1285 | 1286 | 1287 | 1288 | 1289 | 1290 | 1291 | 1292 | 1293 | 1294 | 1295 | 1296 | 1297 | 1298 | 1299 | 1300 | 1301 | 1302 | 1303 | 1304 | 1305 | 1306 | 1307 | 1308 | 1309 | 1310 | 1311 | 1312 | 1313 | 1314 | 1315 | 1316 | 1317 | 1318 | 1319 | 1320 | 1321 | 1322 | 1323 | 1324 | 1325 | 1326 | 1327 | 1328 | 1329 | 1330 | 1331 | 1332 | 1333 | 1334 | 1335 | 1336 | 1337 | 1338 | 1339 | 1340 | 1341 | 1342 | 1343 | 1344 | 1345 | 1346 | 1347 | 1348 | 1349 | 1350 | 1351 | 1352 | 1353 | 1354 | 1355 | 1356 | 1357 | 1358 | 1359 | 1360 | 1361 | 1362 | 1363 | 1364 | 1365 | 1366 | 1367 | 1368 | 1369 | 1370 | 1371 | 1372 | 1373 | 1374 | 1375 | 1376 | 1377 | 1378 | 1379 | 1380 | 1381 | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 | 1395 | 1396 | 1397 | 1398 | 1399 | 1400 | 1401 | 1402 | 1403 | 1404 | 1405 | 1406 | 1407 | 1408 | 1409 | 1410 | 1411 | 1412 | 1413 | 1414 | 1415 | 1416 | 1417 | 1418 | 1419 | 1420 | 1421 | 1422 | 1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1430 | 1431 | 1432 | 1433 | 1434 | 1435 | 1436 | 1437 | 1438 | 1439 | 1440 | 1441 | 1442 | 1443 | 1444 | 1445 | 1446 | 1447 | 1448 | 1449 | 1450 | 1451 | 1452 | 1453 | 1454 | 1455 | 1456 | 1457 | 1458 | 1459 | 1460 | 1461 | 1462 | 1463 | 1464 | 1465 | 1466 | 1467 | 1468 | 1469 | 1470 | 1471 | 1472 | 1473 | 1474 | 1475 | 1476 | 1477 | 1478 | 1479 | 1480 | 1481 | 1482 | 1483 | 1484 | 1485 | 1486 | 1487 | 1488 | 1489 | 1490 | 1491 | 1492 | 1493 | 1494 | 1495 | 1496</ |
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INTRODUCTION

To purport to solve within the few pages of this publication the problems and issues encountered in the development of truly effective instructional programs obviously would be misleading. The fact that the instructional program must reflect and employ the local characteristics of each school; the fact that well-planned change and modification are integral parts of a quality instructional program; and the fact that individuals with their individual problems, needs, and desires are of major importance in any instructional program all deny such a possibility.

There are, however, certain characteristics of the educational program that must be common to all schools if the needs of individuals are to be met. One of these characteristics is a breadth of offerings that will permit individuals to experience growth both in the area of common need and in the area of individual interests.

The purpose of this publication is to share some ideas and plans concerning curriculum with local school districts in the hope that they will find information here which will stimulate or influence them as they improve their educational programs. The method selected for the presentation of these ideas is in the form of a curriculum design based upon the assumption that the goals and purposes of public education in Iowa are reasonably clear and that the term "minimum program" is not necessarily synonymous with quality education.

While the value of the design is dependent upon the needs of the local district, it has been prepared with the following uses in mind:

1. To reflect the philosophy of the State Department of Public Instruction concerning the need for a comprehensive educational program.
2. To serve as a source of information for local schools developing their own curriculum designs.
3. To serve as a means of informing the public as to the essential kinds of topics and experiences that are to be found in a comprehensive educational program.

4. To provide, through bibliographies, additional sources of information and materials centers and professional libraries.

Organization of the Design

The design contains information relative to fourteen subject-matter areas cited in Standard 41, Circular 100a revised, and commonly found in programs of local schools organized to meet the many and varied educational needs of children. On pages four and five, these areas have been presented in chart form to indicate the organizational level at which they are taught. The remaining pages present each of these areas in the following manner: (1) a brief outline of some of the topics, activities, and experiences that are appropriate for the elementary-school level; (2) a brief outline of topics, experiences, and activities that are appropriate for the secondary-school level; and (3) a bibliography containing sources of information relative to the subject-matter areas.

While the organization of the design is according to subject-matter area, in actual practice, it is desirable that some of these topics from several of these areas be combined into a single teaching unit. This is particularly true at the elementary-school level. Also, there are certain courses that may be considered desirable that are not included as a subject-matter area in this design. For example, many aspects of safety education are best taught when integrated with teaching units from other subject-matter areas; but a course in driver education at the secondary-school level would be desirable.

ELEMENTARY SCHOOL

| | | |
|---|--------------------------------------|--------------------------------|
| K | <u>ART</u> | <u>MODERN FOREIGN LANGUAGE</u> |
| . | Painting and drawing | (Level I when part of the |
| . | Textiles | elementary program) |
| . | Carving | |
| . | Printing | |
| . | Modeling | <u>MUSIC</u> |
| . | Art arrangements | Listening |
| . | Designing | Singing |
| . | Lettering | Rhythm |
| . | Puppetry | Creating |
| . | | Playing instruments |
| . | | Music appreciation |
| . | | |
| . | <u>HEALTH AND PHYSICAL EDUCATION</u> | |
| . | | |
| . | Experiences developing desirable | |
| . | habits, attitudes, and practices | <u>SCIENCE</u> |
| . | for health, safety, and physical | Living things |
| . | fitness | Man's place in a changing |
| . | | environment |
| . | | The universe |
| . | <u>LANGUAGE ARTS</u> | The earth |
| . | | Physical and chemical forces |
| . | Oral and written language | |
| . | Oral and silent reading | |
| . | Creative experiences | |
| . | Literary appreciation | <u>SOCIAL STUDIES</u> |
| . | Listening and speaking | Living in the immediate envi- |
| . | Handwriting | ronment |
| . | Spelling | Living together in home and |
| . | Library skills | school |
| . | | Living in the neighborhood |
| . | | and community |
| . | | Expanding community life |
| . | <u>MATHEMATICS</u> | Life in other communities |
| . | | Living in the Americas |
| . | Sets and relation between sets | Life on other continents |
| . | Numeral and number | |
| . | Numeration and number systems | |
| . | Ordered pairs | |
| . | Language of mathematics | |
| . | Geometry | |
| 6 | | |

SECONDARY SCHOOL

7

ART

MODERN FOREIGN LANGUAGE

HEALTH AND PHYSICAL EDUCATION

MUSIC

HOMEMAKING

SCIENCE

INDUSTRIAL ARTS

SOCIAL STUDIES

LANGUAGE ARTS

TYPEWRITING PERSONAL

MATHEMATICS

VOCATIONAL AGRICULTURE
(9th grade)

10

ART

MATHEMATICS

BUSINESS EDUCATION

MODERN FOREIGN LANGUAGE

DISTRIBUTIVE EDUCATION

MUSIC

HEALTH AND PHYSICAL EDUCATION

SCIENCE

HOMEMAKING

SOCIAL STUDIES

INDUSTRIAL ARTS

TRADE AND INDUSTRIAL EDUCATION

12

LANGUAGE ARTS

VOCATIONAL AGRICULTURE

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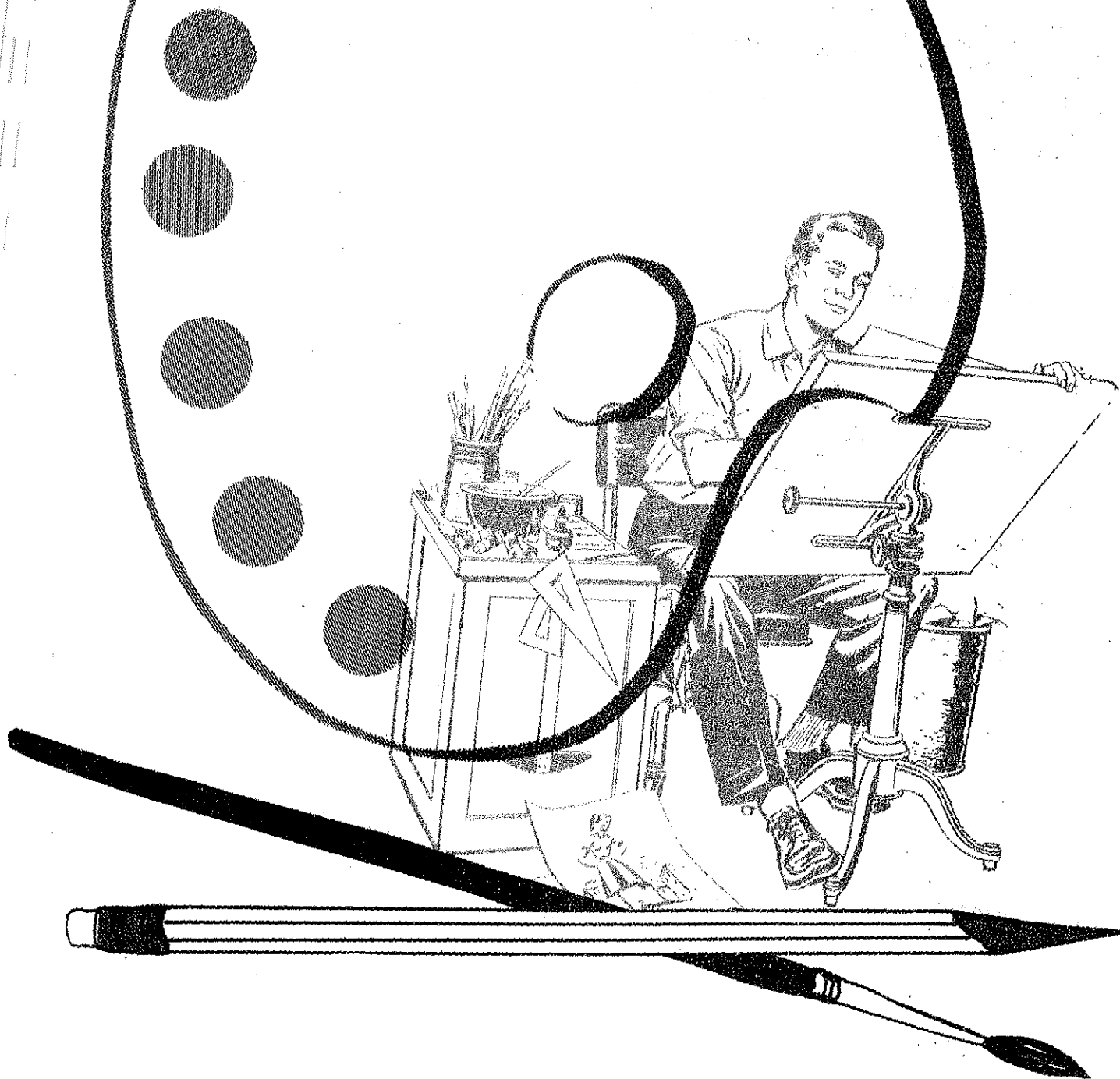
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ART



ART

The art program should be presented in such a manner that it reveals in an orderly and organized manner a development in self realization through visual creative expression. Learning procedures and situations should be comparable to that of any other area of the curriculum and should be considered to be valuable and important to the child in his development and growth.

ELEMENTARY

Art experience in the elementary school should be designed to provide children with opportunities to discover and appreciate the wonder and beauty of the world in which they find themselves. Through these varied art experiences, the child should experiment with materials, tools, and processes; express himself through various art objects and visual forms; and become sensitive to the art work of his own and of others.

| | | |
|---|-----------------------------|-------------------------|
| K | <u>PAINTING AND DRAWING</u> | <u>PRINTING</u> |
| . | Finger | Print making |
| . | Calcimine | Block printing |
| . | Crayons | Monoprint |
| . | Colored chalk | Screen printing |
| . | Pencil | <u>MODELING</u> |
| . | Pens | Clay |
| . | Brushes | Paper |
| . | <u>TEXTILES</u> | <u>ART ARRANGEMENTS</u> |
| . | Stitchery | Flower |
| . | Stenciling | Room |
| . | Weaving | <u>DESIGNING</u> |
| . | <u>CARVING</u> | School exhibits |
| . | Wood | Bulletin boards |
| . | Insulation materials | <u>LETTERING</u> |
| . | Soap | <u>PUPPETRY</u> |
| 6 | Wax | |

SECONDARY

The art program at the secondary-school level is both a continuation of the previous art experiences of elementary school children and an introduction to new and more mature experiences in art. Consideration must be given to the child who will become a consumer of art; to the child who will have an avocational interest in art; and to the child who will choose art as his vocation. At the junior-high-school level, the experiences will generally be planned for the first two of these three types of pupils; whereas, the senior-high-school program should increasingly provide experiences that will be appropriate for each of the three broad categories.

| | | | |
|---|-----------------------------|---------------------------------|--|
| 7 | PAINTING | MODELING AND CERAMICS | |
| . | ILLUSTRATION | EXPERIENCES IN ART APPRECIATION | |
| . | BASIC DESIGN EXPERIENCE | PUPPETRY | |
| . | LETTERING AND POSTER-MAKING | EXPLORATORY COLOR EXPERIENCES | |
| 9 | | PHOTOGRAPHY | |

| | | | |
|----|-------------------------------------|----------------------------|--------------------------|
| 10 | <u>DRAWING</u> | <u>SCULPTURE</u> | <u>TEXTILES</u> |
| . | Space | Clay | Stitchery |
| . | Perspective | Wedging | Dyes and dyeing |
| . | Freehand drawing | Slip | Linoleum printing |
| . | Coordination | Finishing | |
| . | Contour lines | Armature | <u>LETTERING</u> |
| . | Gesture | Bas-relief | Pen and ink |
| . | Weight | Glyptic sculpture | Brush lettering |
| . | Solidity | | Variation of letter form |
| . | <u>WOOD: Carving and Decorating</u> | <u>BOOKBINDING</u> | Posters |
| . | Whittling | Book cover | |
| . | Chip carving | Hinge | <u>METALCRAFT</u> |
| . | <u>GRAPHIC ARTS</u> | Placing of book in binding | Etching |
| . | Printing technique | <u>LEATHER</u> | Saw piercing |
| . | Commercial adaptation | Designing | Binding and shaping |
| . | Block print | Tooling | Shots or balls |
| . | <u>PAINTING</u> | Binding | Chain and links |
| . | Various colors and paints | Texturing | Planishing |
| 12 | Various types of materials | Decorating stamps | |
| | | Dyeing | |
| | | Lacing | |
| | | Polishing | |

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EDUCATION

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I is hear
want de

er Mr. Thomson:
Fall is hear again! As you enjoy it's
pleasant days you must find it hard to
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world' will e
you will r
for

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must find it hard to
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We will send you such a copy if
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offer. Instead of your subscription
terminating at the end of this
year, just enclose your book
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renewal form and we will
send you a copy of our
new book, "Travel With Us
from East To West".

Cordially yours,

[illegible]

BUSINESS EDUCATION

The primary purposes of business education is to develop in our young people the competencies, understandings, and attitudes for both occupational and personal use. The skills they develop may be used for employment after graduation, facilitate their post-high school study, sustain them in part-time jobs while attending college, and enrich their general education. The opportunities provided within the area of business education should be broad and varied enough to allow individuals to select and pursue a specific vocational goal within this area as well as to provide experience related to the business world in general.

| | | | |
|----|--|-----------------------------|--------------------|
| 7 | <u>TYPEWRITING</u> (in Junior High Schools) | | |
| 9 | Occupational Exploration | | |
| | Personal Use | | |
| 10 | <u>ACCOUNTING</u> | <u>SECRETARIAL-CLERICAL</u> | |
| | Bookkeeping | Introduction to business | |
| | Record keeping | Stenography | |
| | Business machines | Typewriting | |
| | Data processing machines | Secretarial practice | |
| | | Clerical practice | |
| | | Office machines | |
| | <u>DISTRIBUTION</u> | <u>ADDITIONAL COURSES</u> | |
| | Retailing | Applied arithmetic | |
| | Merchandise | Business arithmetic | |
| | Information | Business economics | |
| | Salesmanship | Business law | |
| | Advertising | Typewriting | |
| | Display | Business English | |
| | <u>KNOWLEDGE AND ABILITY REQUIRED FOR INITIAL JOB:</u> | | |
| | Office machines | Bookkeeping | Machine accounting |
| | Work experiences | Typewriting | Filing |
| | Salesmanship | Shorthand | |
| | <u>PREPARATION FOR EMPLOYMENT AS:</u> | | |
| 12 | Bookkeeper | Stenographer | Secretary |
| | Typist | General clerk | File clerk |
| | | | Salesperson |

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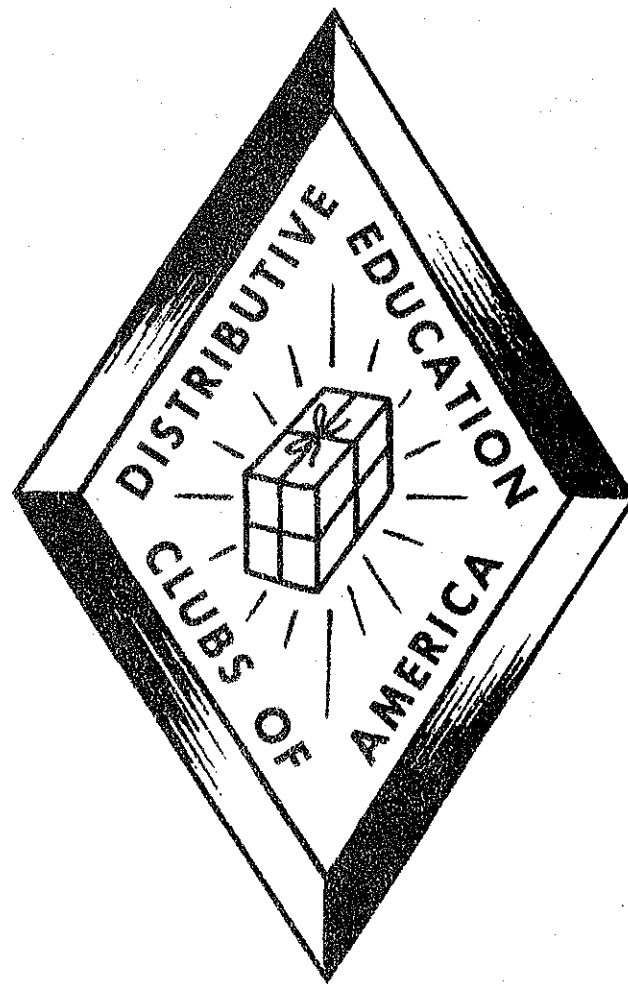
"This We Believe About Business Education in the High School," undated.

This booklet, the second in a series, was prepared by the Policies Commission for Business and Economic Education. The Commission is sponsored by the United Business Education Association, a Department of the National Education Association, and by Delta Pi Epsilon, a national honorary graduate fraternity in business education.

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DISTRIBUTIVE EDUCATION



DISTRIBUTIVE EDUCATION

The term "distributive education" identifies a program of instruction in distribution, marketing, and management. The distributive education program has been developed to serve the educational needs of employed distributive personnel within the framework of their careers whether they be preparing themselves for entry into the field of distribution, upgrading themselves in their occupations, or involving themselves in decision-making activities. The goals for the distributive education program are: (1) to offer instruction in distribution, marketing, and management; (2) to aid in the improvement of the techniques of distribution; and (3) to develop a broader understanding of the social and economic responsibilities of those engaged in distribution in a free, competitive society.

One form of the total distributive education program, the cooperative relationship which exists between the public school and the business community is basic to this phase of the program in achieving the objective of preparing young people for careers in the field of distribution.

Classroom instruction becomes more meaningful to the enrollees when their studies are applied to a real business environment. Students are employed, at hourly rates, in business firms which provide job experiences and instruction. Careful placement assures a training situation which is in keeping with the student's career interests. Typically, students report to their places of employment each afternoon of every school day throughout the school year. For the student this beginning job initiates him into the field of distribution; and provides the opportunity to acquire job competency, to advance to subsequent positions of greater responsibility, to observe our free enterprise system in operation, and to become a contributing member of our society.

10 A course in salesmanship and/or retailing precedes enrollment in Distributive Education.

DISTRIBUTIVE EDUCATION CURRICULUM INCLUDES STUDY OF (but is not limited to)

Marketing

- . Buying
- . Selling
- . Pricing
- . Wholesaling
- . Retailing

Place of the Consumer in the Marketing Process

- . Buying habits
- . Consumer demands
- . Competition

Kinds of Organization Performing Distributive Functions

- . Banking
- . Wholesaling
- . Retailing
- . Service

Various Financial Aspects of Distribution

- . Capital structure
- . Credits
- . Records

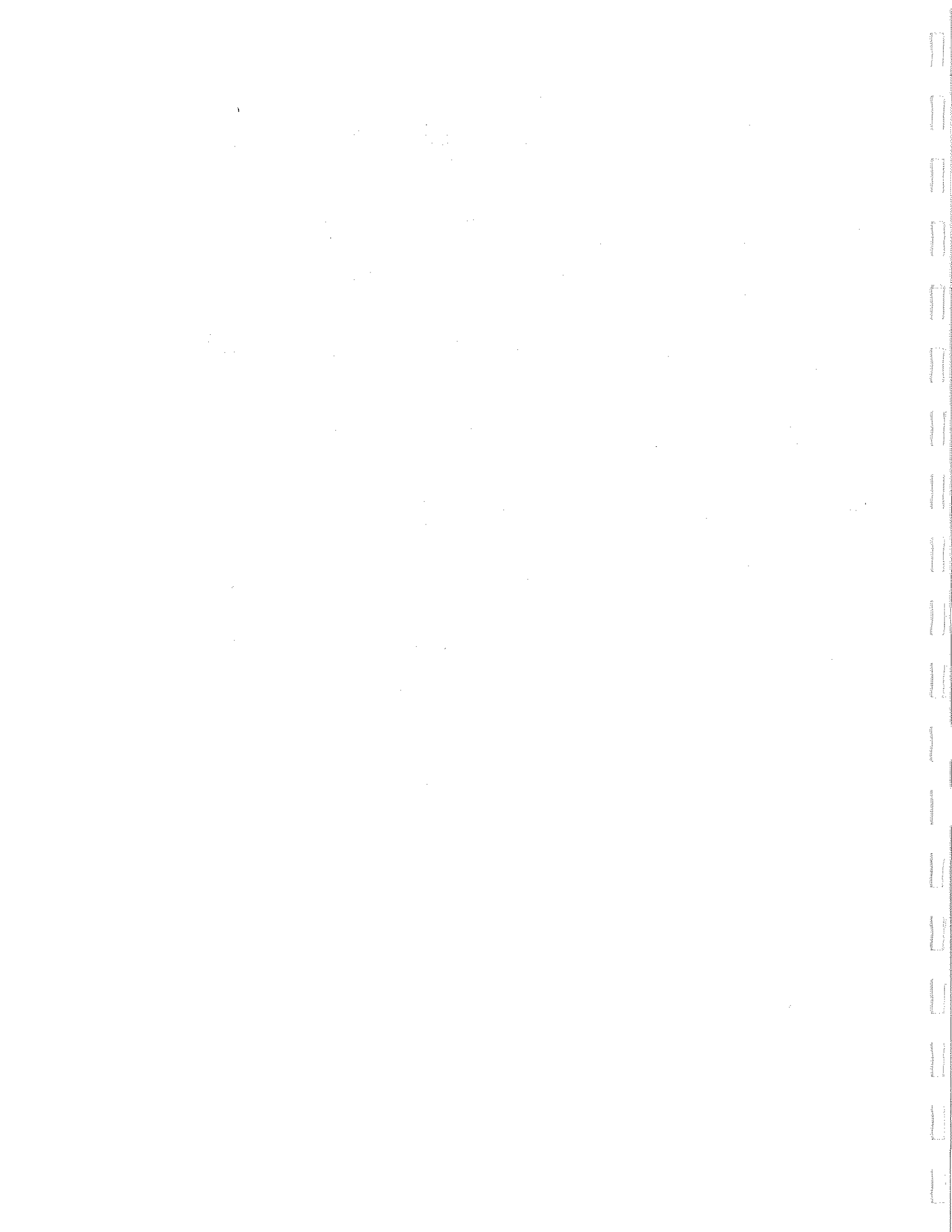
Factors Affecting Marketing

- . Market research
- . Advertising
- . Visual merchandising
- . Location
- . Consumer services

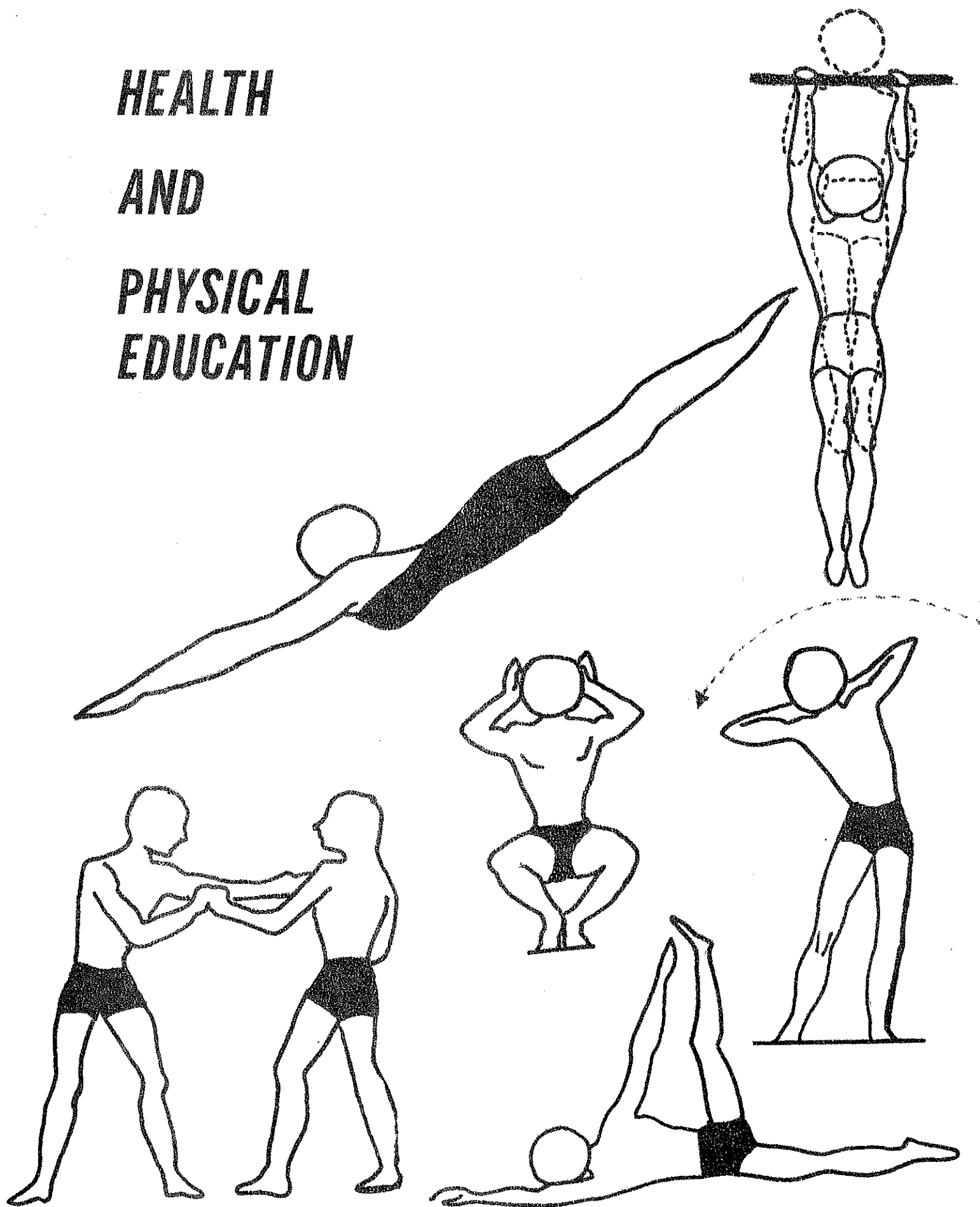
12 In addition, each pupil receives a wide-range of specific instruction which is directly related to developing immediate job proficiency.

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HEALTH AND PHYSICAL EDUCATION



HEALTH AND PHYSICAL EDUCATION

Any sound program of health and physical education must include the various facets of health, physical fitness, and safety. Experiences provided in this area of the curriculum should be designed to promote desirable health practices and attitudes and to maintain optimum physical and mental health of children. Such a program requires that the learning situations are real and vital to the individual, providing him with habits and attitudes that will serve him now and throughout his adult life.

ELEMENTARY

Instruction in the area of health and physical education should achieve the following objectives:

- . To develop desirable health habits,
- . To develop neuromuscular skills and abilities by providing a varied program of activities that demand and facilitate the development of these skills,
- . To develop desirable safety habits,
- . To develop a social consciousness which will enable the pupil to adjust to society and the human elements of his environment,
- . To develop qualities of leadership, and
- . To develop principles of good sportsmanship and thus aid in the building and development of desirable modes of behavior and character.

| K | <u>HEALTH INSTRUCTION</u> | <u>PHYSICAL EDUCATION</u> |
|---|--|----------------------------------|
| | <u>Developing Habits, Attitudes, and Practices</u> | Creative activities |
| . | | Self-testing activities |
| . | | Rhythms |
| . | Food and eating practices | Games of low organization |
| . | Sleep and rest | Song plays |
| . | Body structure | Folk dances |
| . | Function of body | Games of increasing organization |
| . | Care of teeth, eyes, ears | Intramural activities |
| . | Cleanliness | Field days |
| . | Safety and first aid | Playdays |
| . | Physical environment | Festivals |
| 6 | Stimulants and narcotics | Basic skills in sports |

SECONDARY

Objectives of health and physical education instruction at the secondary level are:

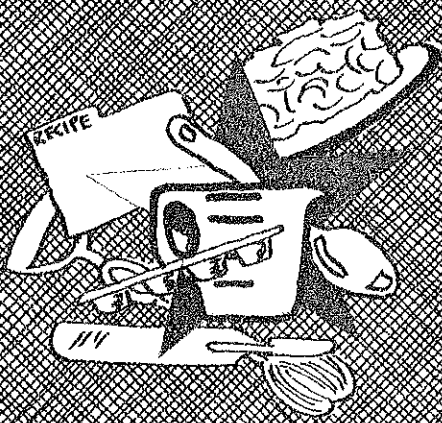
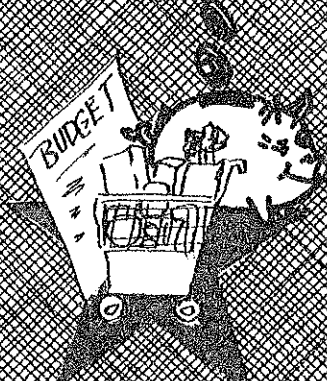
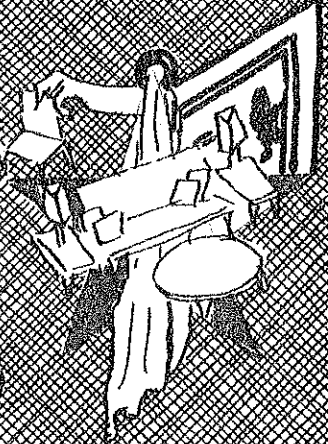
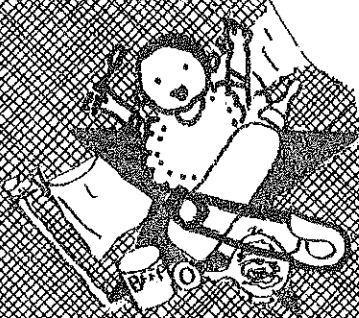
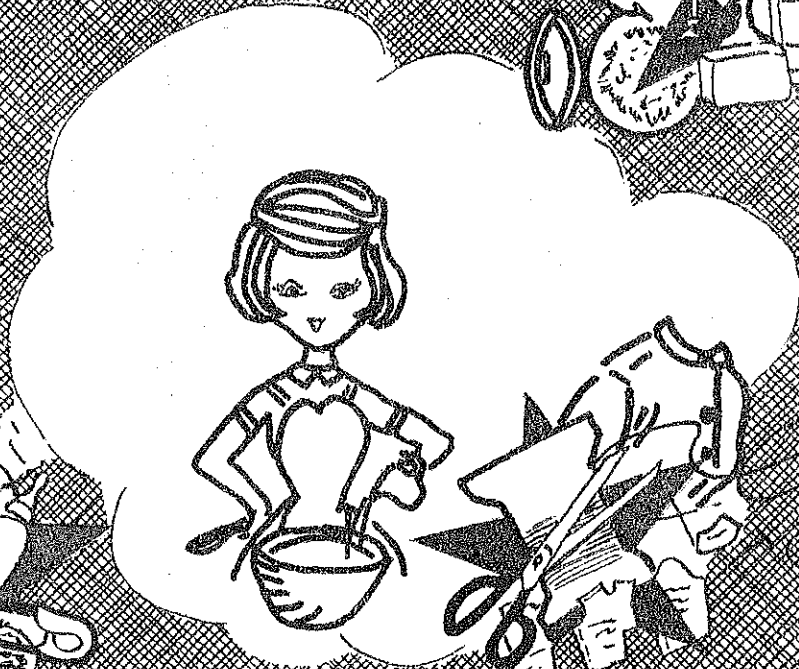
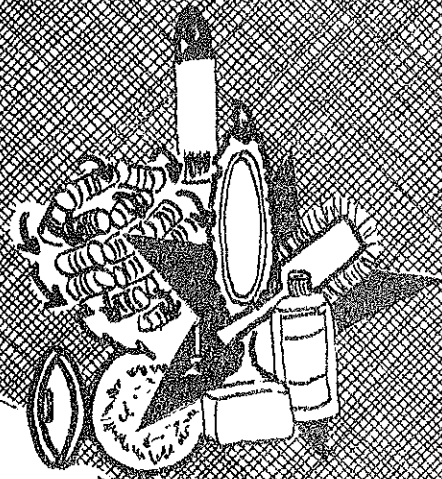
- . To develop health knowledge, pupil health habits, health safety, and sound health attitudes,
- . To develop the health, strength, and physical fitness of the individual,
- . To develop the ability to make judgments, responses, and adjustments in rapid changing situations without injury or danger to himself or others,
- . To develop the ability to work and play together, and
- . To develop skills, interests, and knowledge in a variety of games and activities that will provide pleasure now as well as in the future.

| 7 | <u>HEALTH INSTRUCTION</u> | <u>PHYSICAL EDUCATION</u> |
|----|---------------------------------|---------------------------|
| . | Understanding changing growth | <u>Individual Sports</u> |
| . | Personal adjustment | <u>Self Testing</u> |
| . | School adjustments | Aquatics |
| . | Family relationships | Archery |
| . | Healthful living | Bag punching (boys) |
| . | Nutrition | Bicycling |
| . | Leisure-time interests | Bowling |
| . | Health and safety in home, | Golf |
| . | school, community | Skating |
| . | Group relationships | Jumping rope |
| . | Emotional control | Track and field |
| . | Desirable health habits | Winter sports |
| . | Exercise, sleep, rest | |
| . | Disease prevention and control | <u>Team Sports</u> |
| . | Mental Health | |
| . | Body function | Basketball |
| . | Understanding special senses | Baseball (boys) |
| . | First aid | Field hockey (girls) |
| . | Narcotics, alcohol, and tobacco | Football (boys) |
| . | | Soccer |
| . | | Softball |
| . | | Touch football (bbys) |
| . | | Volleyball |
| . | | |
| . | | <u>Dance</u> |
| . | | |
| . | | <u>Adapted Physical</u> |
| . | | <u>Activities</u> |
| 12 | | <u>Body Mechanics and</u> |
| | | <u>Conditioning</u> |

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Homemaking



HOMEMAKING

The primary purpose of homemaking is to develop in our young people the competencies, understandings, and attitudes which will contribute to strengthening family life. Among these competencies and attitudes are human relations, the efficient utilization of material resources, and the development of a system of personal and social values.

Instruction in homemaking deals with personal and family relationships; home management and consumer buying; housing, home equipment, and furnishings; child development; food and nutrition; clothing, grooming, and textiles; and with the interrelationship of these areas of study as they are applied in the everyday lives of both young and experienced homemakers.

| | | | |
|---|--|---|----------------------------------|
| 7 | 7th and/or 8th (1 unit of credit) and 9th (1 unit of credit) | | |
| . | <u>FOOD AND NUTRITION</u> | <u>FAMILY RELATIONSHIPS & CHILD DEVELOPMENT</u> | <u>CLOTHING</u> |
| . | Learning about foods--our business | Caring for children | Grooming |
| . | Providing adequate meals | Understanding, enjoying, and appreciating children | Clothing construction |
| . | <u>HOUSING</u> | Understanding the role of play in the development of children | Dressing attractively for school |
| . | Helping at home | | Selecting clothing |
| . | Making the girls' room attractive and convenient | Living happily with family and friends | |
| 9 | | | |

| | | | |
|----|---|---|--|
| 10 | 10th or 11th (1 unit of credit) and 12th (1 unit of credit) | | |
| . | <u>FOOD AND NUTRITION</u> | <u>FAMILY RELATIONS</u> | <u>CLOTHING</u> |
| . | Preserving and storing food | Understanding oneself | Caring for clothes |
| . | Planning and preparing family meals | Learning about courtship and marriage | Choosing and purchasing attractive and suitable clothing |
| . | Learning about meal management and nutrition | <u>HOUSING</u> | Clothing construction |
| . | Selecting and buying foods | Creating a liveable home | Planning clothing expenditures for the family |
| . | <u>CHILD DEVELOPMENT</u> | Managing resources to provide maximum family satisfaction | |
| . | Assuming adult responsibility for guidance of children | | |
| 12 | | | |

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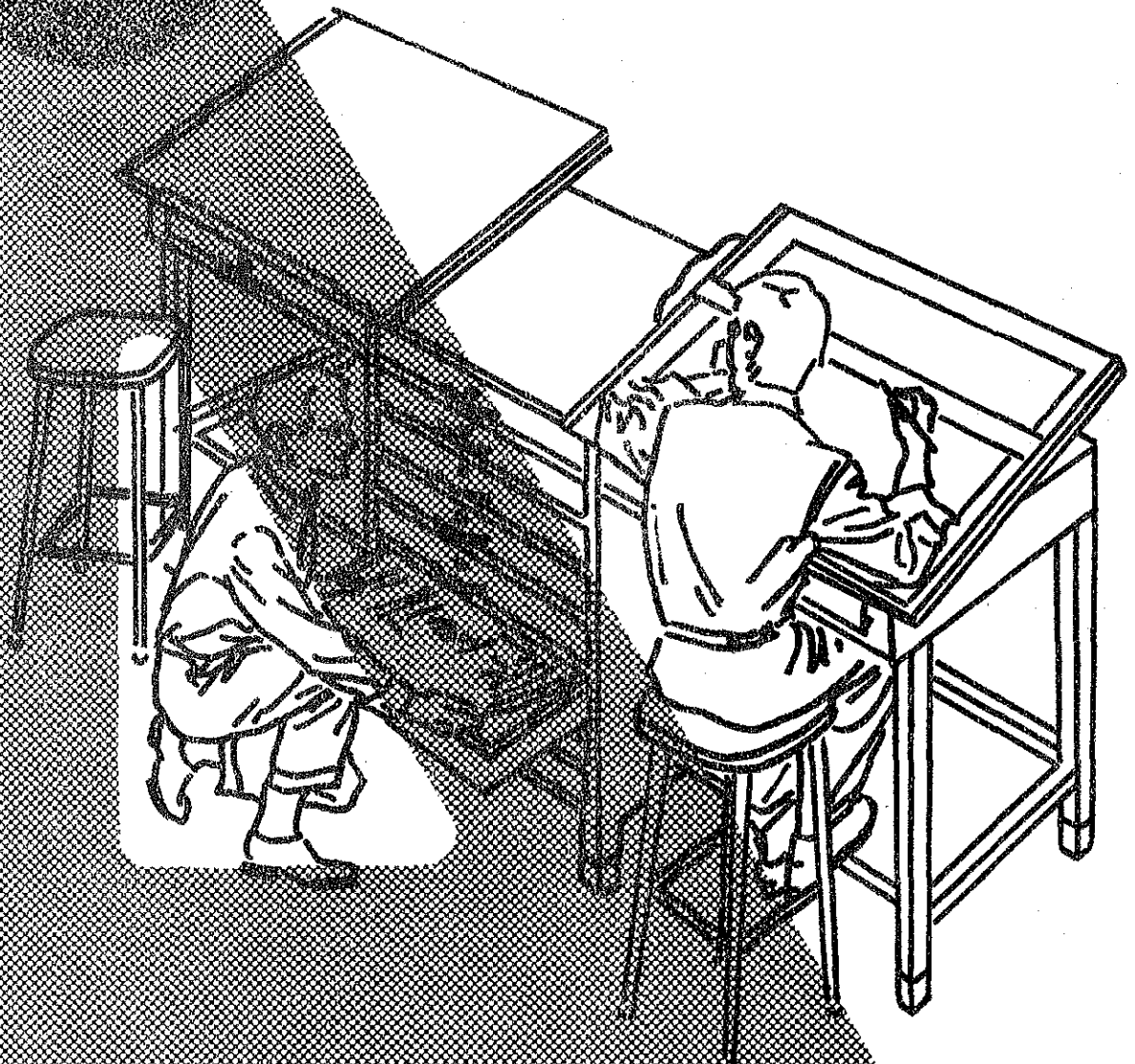
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*Evaluation Materials are available in the areas of foods, clothing, housing, child development, and family relations for grades nine through twelve.

*These curriculum guides and materials are available free from the Vocational Division of the State Department of Public Instruction, State Office Building, Des Moines, Iowa, to schools offering vocational homemaking; they may be purchased at the Book Store, Iowa State University, Ames, Iowa, by other schools.

INDUSTRIAL ARTS



INDUSTRIAL ARTS

Industrial arts, through a variety of experiences and activities in a shop-laboratory-classroom setting, makes its contribution to the total education of the pupil.

In the listing below of the basic objectives for the industrial arts program, it should be noted that supplementary objectives are equally important in providing for the individual at various grade levels. The basic objectives are: (1) to develop in pupils the insight into and understanding of an industrial society and its place in our culture; (2) to give pupils a better knowledge and appreciation of modern industrial processes, products, and procedures; (3) to develop a measure of skill in the use of common tools and machines; (4) to develop and apply desirable work habits and attitudes; (5) to give pupils opportunities to develop their judgment and skills in selecting, using, and maintaining the industrial products and equipment of everyday living.

ELEMENTARY

Constructive activities with material things are to be encouraged as an integrated part of each area of the elementary-school curriculum. These experiences and activities are a means through which (1) learning can be made more meaningful for pupils through concrete examples, (2) motivation for learning can be increased, and (3) teaching of fundamental skills can be implemented. Activities should, at this level, be provided and applied whenever it is believed by the teacher that these experiences can make a greater contribution than can some other experience or method.

| K | <u>SUGGESTED ACTIVITIES</u> | |
|---|--|---|
| • | <u>SCIENCE</u> | <u>HEALTH, PHYSICAL FITNESS, AND SAFETY EDUCATION</u> |
| • | Construct boxes for planting | Draw and construct traffic signs |
| • | Make pet cages | Construct first-aid kit |
| • | Make tin can telephones | Discuss, practice correct use of tools |
| • | Construct model thermometer | Repair bicycles |
| • | Construct ant observatory | Approach electricity from safety aspect |
| • | Connect telephone-telegraph equipment | Set up "roads" on playground |
| • | Assemble crystal radio sets | Make home plates, bases, bat stands |
| • | <u>COMMUNICATIVE ARTS</u> | <u>FINE ARTS</u> |
| • | Construct reading chart stand | Construct rhythm instruments |
| • | Draw sketches of school building and area | Paint flower pots |
| • | Make large, lettered blocks | Design and make cookie cutters |
| • | Make scenery and props for plays | Weave with simple looms |
| • | Make puppets | Print with silk screen and stencils |
| • | Operate movie projector | Use linoleum blocks for printing programs for plays |
| • | Make plans for construction work | <u>MATHEMATICS</u> |
| • | <u>CITIZENSHIP AND SOCIAL STUDIES</u> | Construct counting frames |
| • | Observe outdoor construction work | Make abaci |
| • | Make movable partitions for house-keeping corner | Build clocks |
| • | Build models of houses | Design and use play money |
| • | Make relief maps | Make flannelgrams |
| 6 | Reproduce significant inventions | Construct felt boards |
| | | Measure with accuracy |
| | | Prepare bills of material for construction |

SECONDARY

Exploratory experiences at the junior-high-school level are designed: (1) to expand pupil knowledge of and experiences and skills in the use of tools, materials, and processes of industry; (2) to establish an understanding and a respect for craftsmanship in the industrial processes; and (3) to encourage further exploration in the industrial processes.

At the senior-high-school level opportunities should provide experiences and activities: (1) to offer pupils continuing pleasure in creative and constructive work with tools and materials; (2) to further develop problem-solving skills related to materials and processes; (3) to apply the principles of mathematics and science through creative activity; and (4) to develop a background for future vocational, technical, or professional education.

7

EXPLORATORY AREAS

WOODWORKING

ELECTRICITY AND ELECTRONICS

METALWORKING

GRAPHIC ARTS (mainly sketching and drawing)

CRAFTS (after adequate time has been allotted to other phases)

ADVANCED AREAS

POWER MECHANICS(Auto, Airplane, Diesel)--MACHINE SHOP--ELECTRICITY AND ELECTRONICS--WELDING--SHEET METAL--CABINETMAKING--CARPENTRY--GRAPHIC ARTS (Printing and Drafting)--HOME MECHANICS--FOUNDRY

INDUSTRIAL ARTS CURRICULUM INCLUDES EXPERIENCES IN:

PLANNING

SHOP SAFETY

INDUSTRIAL PROCESSES

Problem solving

Skill

Historical

Diagrams

Knowledge

Scope

Layouts

Judgment

Trends

Patterns

Color dynamics

Measurement

Design

Sketching

Selection

Blueprint reading

TOOLS AND MACHINES

MATERIALS

Types

Kinds

Size

Varieties

Cost

Limitations

Simple maintenance

Properties

Process in the manufacture

Cost

Use

Use

12

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Language Arts



ENGLISH LANGUAGE ARTS

ELEMENTARY

Each minute of every day requires use of and provides opportunities for the development of the English language arts. The program should be regarded as a curriculum area rather than individual subjects composed of related topics. The expression skills, the reception skills, and the mechanical skills are all a part of the language arts program and should include experiences designed to promote speaking and writing, listening and reading, understanding, discrimination, and critical analysis.

K

Oral and Written Language; Creative Experiences

- . Facilitates and corrects communication skills
- . Develops personal-social communication skills
- . Provides opportunities for talking with others in a variety of situations
- . Coordinates activities and instruction in the related and/or inter-related language arts
- . Provides opportunities for writing and talking to or with others in a variety of situations
- . Stimulates use of knowledge for personal interest and need
- . Encourages use of skills and techniques for needs both in and out of school

Oral and Silent Reading; Literary Appreciation

- . Prepares and instructs pupils for reading tasks
- . Develops, builds, and enriches vocabulary
- . Contributes to personal growth and development
- . Develops needed skills and techniques
- . Unlocks recorded thoughts, feelings, and knowledge of mankind
- . Individualizes reading for varying pupil needs
- . Introduces children to fiction, science, social studies, mathematics
- . Explores and begins program of literature related to cultures

Listening and Speaking

- . Provides purposeful and meaningful opportunities in a variety of activities related to the listening skills
- . Provides opportunities for critical listening
- . Assumes responsibility for development of the spoken language

Handwriting

- . Provides systematic and organized instruction
- . Develops a personal desire for legibility in writing
- . Eases and assists in transition from manuscript to cursive form
- . Develops an understanding of the relationship between legible handwriting and effective communication
- . Encourages self-improvement and evaluation of personal needs

Spelling

- . Motivates instruction to meet individual and group needs
- . Develops relationships between spelling and writing
- . Encourages improvement of personal spelling needs

Library Skills

- . Provides graduated instruction to meet varying levels of ability
- . Locates and uses a variety of materials
- . Encourages wide use of facilities

6

SECONDARY

Because of the great range in pupils' interests, abilities, attitudes, and personal needs, planned experiences in the English language arts should be flexible enough to provide a broad and varied program. Courses which will provide satisfying experiences for every pupil in reading, listening, speaking, spelling, grammar, written expression, literary appreciation, and library skills and which will enhance opportunities for knowledge, competency, and proficiency in each of these areas are basic to such a program.

English, Literature

Basic, Ungraded, Corrective, College Preparatory, Enriched, Grammar, Spelling

- . Extends, continues, and refines vocabulary
- . Establishes purposes of communication in life situations
- . Increases power of comprehension
- . Widens use of English in study situations
- . Encourages critical thinking and reasoning
- . Increases power to adjust skills to varying situations
- . Stimulates interpretation and appreciation of humanities
- . Encourages and develops validity of content and organization of ideas
- . Provides a sequential program for teaching vocabulary, spelling, punctuation, and usage
- . Applies use of communication skills in related subject areas

Writing

Composition, Creative Writing

- . Provides organized instructional program
- . Practices application of skills
- . Encourages refinement of written activities
- . Provides opportunities for originality
- . Develops personal focus on content and scope of written composition

Reading

Developmental, Corrective, Independent, Enriched

- . Continues development of reading skills and techniques
- . Increases vocabulary and background concepts
- . Improves or corrects reading deficiencies
- . Promotes growth in skills, tastes, and interests
- . Widens interest and appreciation in reading abilities
- . Strengthens independence in personal reading needs

Speech and Dramatics

- . Enables continuation of verbal improvement
- . Encourages development of personal skills and abilities
- . Provides opportunities for application of skills

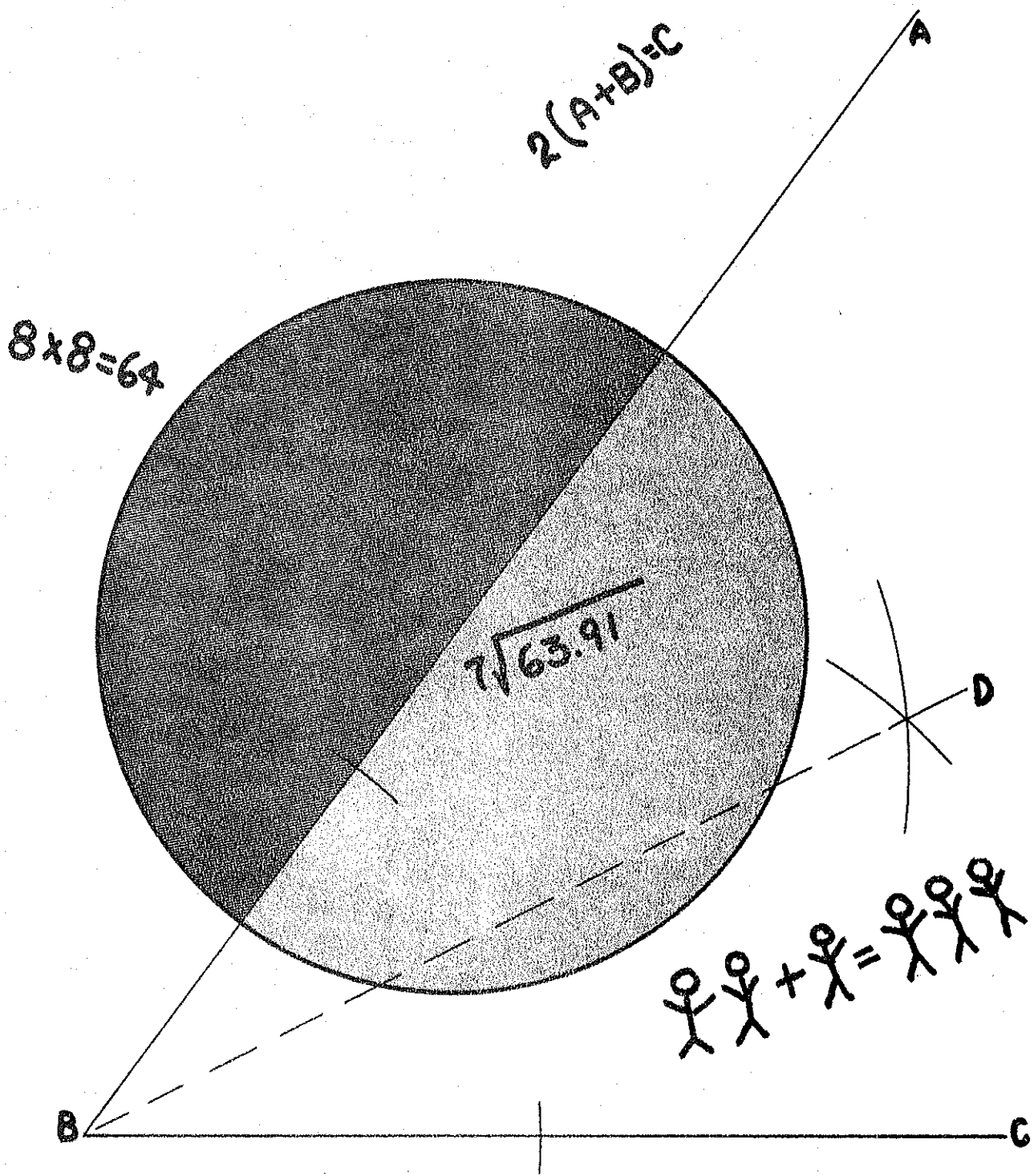
Journalism

- . Provides opportunities in developing the communication skills in a functional manner
- . Develops ability to write clear, forceful standard English
- . Develops ability in evaluating written items of the press

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MATHEMATICS



MATHEMATICS

It is the objective of mathematics programs from kindergarten through grade twelve to see that each pupil gains an understanding of the ideas of mathematics as a logical system; a system which has been evolved by man as a means of recording his thoughts as he seeks solutions to life's problems. Each pupil should also gain respect and appreciation for the disciplinary, cultural, and practical aspects of mathematics. He should acquire the skills, concepts, and understandings that will aid him in the achievement of desirable life goals.

ELEMENTARY

In the elementary school it is of primary importance to emphasize understanding of the big ideas and concepts in mathematics. If attention is focused upon ideas, practical use for the new, precise language of modern mathematics will follow. This attention to understanding will lead the pupils to see the need for computational and manipulative skills.

KEY IDEAS IN ELEMENTARY SCHOOL MATHEMATICS

Sets and Relation Between Sets

Conservation of number, one-to-one and many-to-one correspondence, cardinal and ordinal use of number, sets (groups) of objects and the number associated with each set, equal sets, comparisons

Distinction Between a Number and Its Numeral

Number (the abstraction) and numeral (the symbol), many symbols (names) for the same number, other mathematical names and symbols and their referents

Numerals and Numeration Systems

The base-ten system, systems using bases other than ten, the Roman numeration system, computation (operations) as a procedure for changing names of numbers

Number and Number Systems

Whole numbers, fractions, groups, subgroups and regrouping, properties of numbers and number systems, the counting numbers

Relations and Sets of Ordered Pairs of Numbers

Correspondences, ratio, tables and graphic representation, function

The Equation Used to Express Problem Situations in the Language of Mathematics

Oral study of problem situations, analysis of problem action, intuitive solution of sentences and equations, equations involving ratio, estimation

Geometry

Point, line, plane, space, sets of points (line, plane, triangle, rectangle, parallelogram, square, circle, prism, cylinder, sphere), correspondences (points in a line, lines having a common point, lines in a plane), measurement: nonstandard units, references, comparisons, standard units, time (clock and calendar), money, weight and capacity, linear measure, perimeter, area, volume

SECONDARY

The key ideas of secondary school mathematics develop naturally from those of the elementary school. They evolve from basic mathematical concepts and understandings as they are studied in breadth and depth.

KEY IDEAS IN SECONDARY SCHOOL MATHEMATICS

Sets

Continued development: correspondences, equivalence,
extended to: operations with sets, universe of discourse,
variable, parameter

The Distinction Between a Symbol and Its Referent

Continued development: number-numeral distinctions,
extended to: algebraic and geometric concepts

Mathematical Structure

Continued development: number and number systems, the natural numbers,
integers, rationals, reals, complex numbers,
extended to: the nature of proof, logic, mathematical systems

Relation

Continued development: ratio, functions, graphical representation,
extended to: inequalities, various functions including periodic,
logarithmic, exponential, trigonometric, universe

The Language of Mathematics As an Expression of Physical Situations

Continued development: equations and inequalities used in expressing
problem situations,
extended to: geometric and statistical interpretations and
other mathematical models

Geometry

Continued development: sets of points, lines, polygons, space concepts,
measurement and unit relationships,
extended to: the interrelation of algebraic, geometric and
trigonometric concepts

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Autant ^{comen} autant d'avis.

Broder n'est pas mentir mais farder la ve'rite.

MODERN FOREIGN LANGUAGES

Puis-je presenter mon ami. Enchante!
Le plaisir est pour moi!

Sentir con los menos, y hablar con lost mas.

Der historiker ist ein rückwärts gekehrter prophet.
Daar niets goeds in is, gaat niets goeds uit!

Forte 'e l'aceto de vin dolce.

Nunca lo bueno fue' mucho

Danke schön!



Zdra! vstvui!

Vi capisco.

Kahk di'-LAH? Kahk sah-zhuh bi'-LAH?

MODERN FOREIGN LANGUAGES

Learning a modern foreign language requires the development of four skills--hearing and understanding, speaking, reading, and writing. The purpose of the foreign language program should be to develop the pupil to the point that he can understand and speak the language in everyday situations, read it without needing to translate it, and write directly in the language. In order to achieve this objective the pupil must have completed from four to six years of study in the language which he has chosen, and reach what language teachers define as Level VI. Programs of shorter duration will not fully achieve the fourfold objective of a modern foreign language program. Thus, if a pupil does not begin to study a language until late in his school career, he will have made only a beginning in a learning process which will need to be carried further if the language is to be learned at a fully useful level.

Description of Levels

Level I

- Scope.
1. Cultivation of a proper attitude toward the new language.
 2. Acquisition of the ability to understand the spoken language within the limits of the experience of the class.
 3. Pronunciation and intonation.
 4. Mastery of the most common syntax patterns and forms used in speech.
 5. Mastery of a limited vocabulary which includes most of the function and conjunctive words used in speech, and words used in the units studied.
 6. Introduction to the culture of the country--primarily to those areas that relate to the pupil's own experience and activities (games, sports, family life, holidays) and to those developed in the units studied.

Ideally, the study of a modern foreign language should be started in the elementary-school grades so that pupils may complete Level I by the time they enter the junior high school at Grade 7. Then Level II could be mastered by the end of Grade 8. Then steady progress through one level per year could be made so that Level VI would be pursued during Grade 12.

Level II

- Scope.
1. Reinforcement of aural-oral skills.
 2. Review of material learned in Level I.
 3. Mastery of remaining forms and patterns that constitute the grammar of speech.
 4. Broader vocabulary base.
 5. Systematic introduction to reading.
 6. Development of writing skills, based closely on aural and textual models.
 7. Extensive cultural experience through readings and supplementary materials.

Level III

- Scope.
1. Reinforcement of aural-oral skills and of the patterns and forms of speech.
 2. Introduction to the grammar of writing, the "literary" language.
 3. Reading of complete works in a broad range of style and content.

4. Writing of directed compositions, adaptation of models, summaries, and descriptions.
5. Mature cultural investigations; current affairs; reading in history of civilization, art, literature; significant foreign films, art exhibits, and lectures when available.

Level IV

This level aims at increased facility in speaking and reading the foreign language. Thus the skill emphasis is similar to that of Level III, but the content is broader, with more challenging material, predominantly of contemporary interest, and opportunity for individual communication with nationals of the foreign language via correspondence and interviews. Readings and discussions at this level might profitably be integrated with other studies in literature and social science.

Levels V, VI

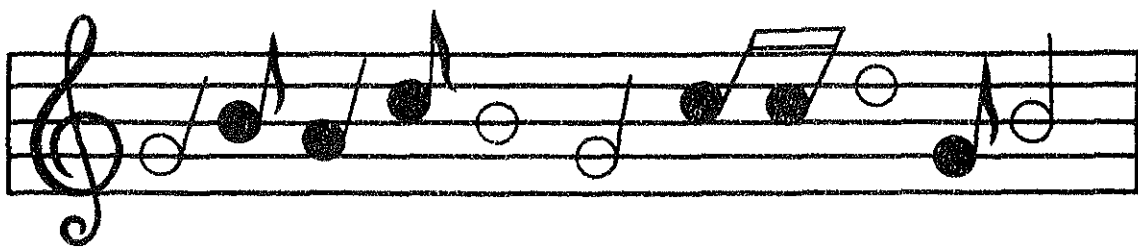
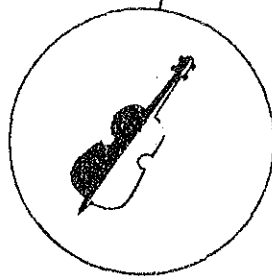
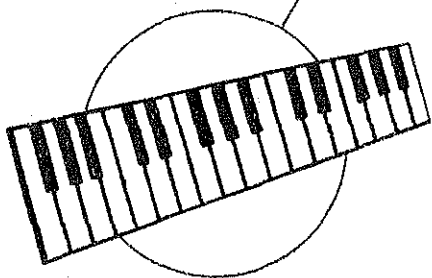
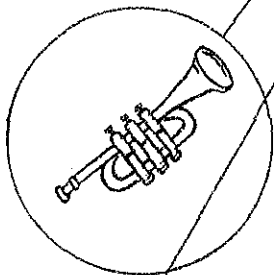
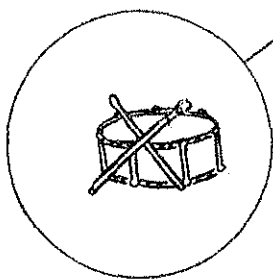
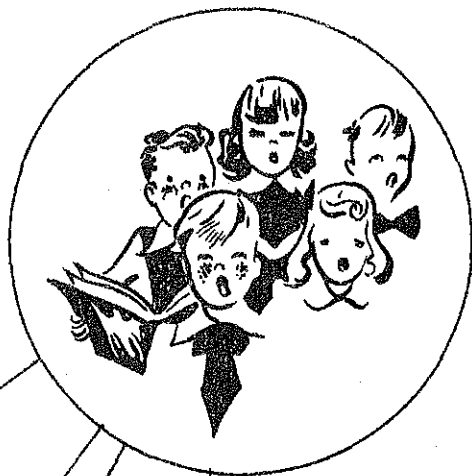
Since these levels presuppose pupils of superior preparation (from the long streams A or B, or with out-of-school advantages), the scope of either may include: oral discussion in the foreign language of films, current events, foreign periodicals, representative biography, and literary masterpieces; original written and oral reports; continuing integration with the work of other courses. College-bound pupils at these levels should receive guided preparation toward college foreign language placement and advanced standing. The most proficient pupils should be encouraged to apply for opportunities in travel and study exchanges, and counseled toward vocational use of the foreign language in areas of appropriate personal satisfaction and national significance.

| | | | | | |
|----|---------------------------------|----------------------------------|---------------------------------|----------------------------------|----------------------------------|
| 4 | First Sequence (Grades 4-12) | Second Sequence (Grades 7-12) | Third Sequence (Grades 9-12) | Fourth Sequence (Grades 9-12) | Fifth Sequence (Grades 11-12) |
| . | Level I | | | | |
| 6 | | | | | |
| 7 | Level II | Level I | | | |
| . | | | | | |
| . | Level III | Level II | Level I | | |
| . | | | | | |
| . | Level IV | Level III | Level II | Level I | |
| . | | | | | |
| . | Level V | Level IV | Level III | Level II | Level I |
| . | | | | | |
| 12 | Level VI | Level V | Level IV | Level III | Level II |

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MUSIC



MUSIC

Music is a means of communication among people. The effective school music program is one in which music education is a continuous process from the kindergarten through grade twelve. Instruction and activities are designed to provide experiences that are enjoyable, informative, and self-rewarding.

ELEMENTARY

Music education contributes vitally to the social, emotional, aesthetic, spiritual, and intellectual growth in the total development of the individual. The purposes of effective music experiences enable children in the elementary school:

- . to express themselves creatively through activities involving singing, dramatization, playing instruments, and simple composition;
- . to receive opportunity for reproduction, if desired, of musical experiences;
- . to develop ability in reading simple music;
- . to participate in group music activities;
- . to develop desirable music tastes;
- . to instill appreciation in relation to humanities;
- . to learn to use the skill of effective listening to various types and styles of music; and
- . to acquire knowledge and skills which will help to make music more satisfying both in and out of school.

| | |
|---|--|
| K | <u>Listening</u> Experiences: group, class, intra-grade groups Media: recordings, radio, television, films, instruments, live performances |
| . | |
| . | |
| . | <u>Singing</u> Experiences: class instruction, group instruction, singing games, conversational singing Media: voice, instruments, recordings, textbooks |
| . | |
| . | <u>Rhythm</u> Experiences: folk dance, folk games, singing games, walking, marching, skipping, running Media: instruments, recordings |
| . | |
| . | <u>Creating</u> Experiences: mimicry, dramatizing songs, composing melodies, conversational singing |
| . | |
| . | <u>Playing Instruments</u> Experiences: solo, group, class Media: toy and rhythm instruments, orchestral and band instruments |
| . | |
| . | <u>Music Appreciation</u> Experiences: groups and classes Media: pictures, library resources, recordings, films |
| 6 | |

SECONDARY

Music plays an important part in the heritage of every young person. The music program must take into consideration the physical, emotional, and psychological changes that are taking place in youngsters during the six years in the secondary school. Music education must be both intellectually challenging and emotionally compelling. Through individual participation and group cooperation music becomes a social, unifying force for enriching the total curriculum.

Music is an integral part of the secondary curriculum because of its cultural, educational, and recreational values. The music educator should accept the pupils' natural interest in music and introduce and develop activities that will encourage free participation both as a listener and as a performer. The purposes of effective music experiences enables the secondary pupil:

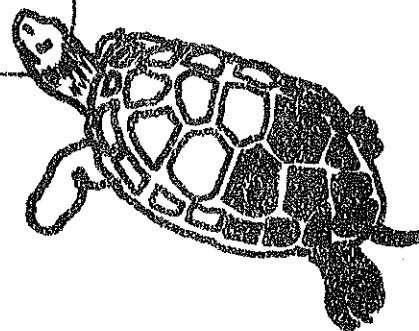
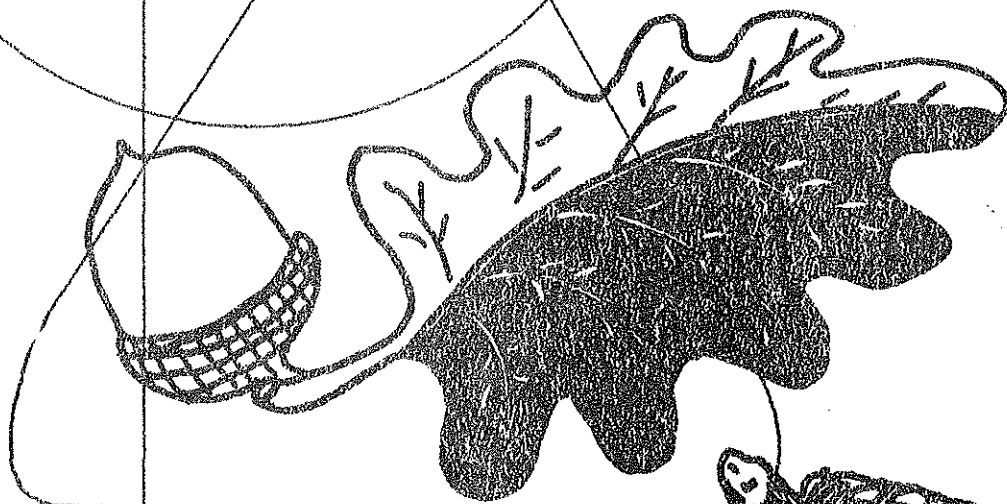
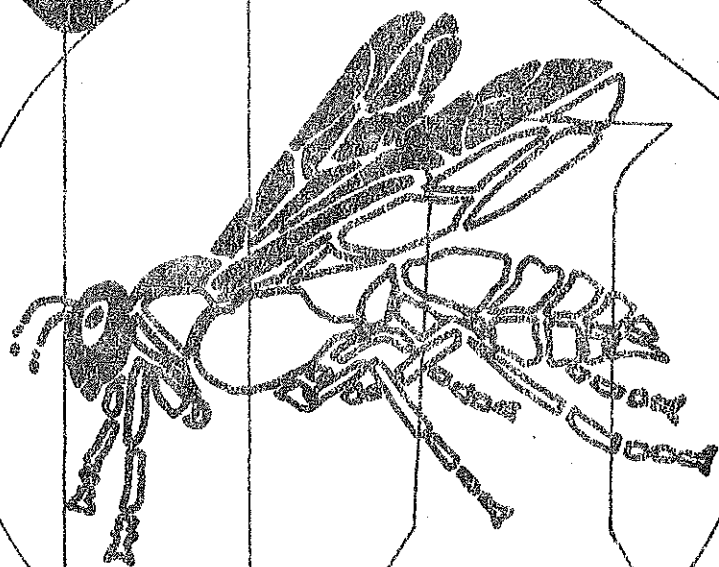
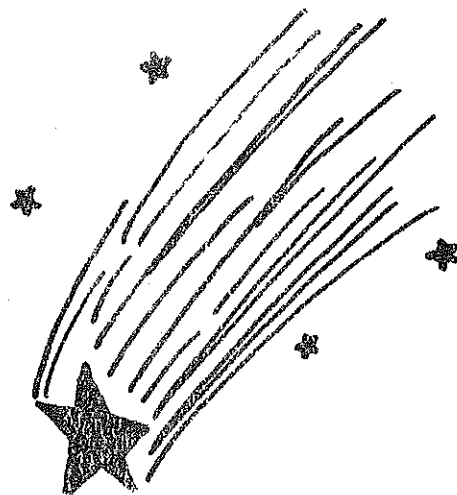
- . to participate in some phase of the music program regardless of talent;
- . to broaden knowledge of music as an aesthetic, spiritual, and social art;
- . to develop music tastes;
- . to build and extend knowledge of music theory and literature;
- . to explore independently new and unfamiliar music literature;
- . to encourage development of natural talents;
- . to encourage leisure-time musical pursuits;
- . to foster development of music interests related to personality; and
- . to realize that music reaches the heart as well as the mind.

| | |
|----|--|
| 7 | <u>General Music</u> Continuation and extension of elementary instructional program |
| . | |
| . | <u>Choral Music</u> Chorus, glee clubs, mixed chorus, a cappella choir, small ensembles, operetta groups |
| . | |
| . | <u>Instrumental Music</u> Orchestra, concert band, marching band, pep band, instrumental ensembles |
| . | |
| . | <u>Applied Music</u> Vocal techniques and ensembles, instrumental techniques and ensembles |
| . | |
| . | <u>Music Appreciation and Literature</u> Theory, music history, harmony, composition |
| . | |
| . | <u>Music Activities for Student Body</u> Musical films, concerts, assembly program, assembly singing, exchange programs (schools and community), parades, interdepartmental activities, recitals, radio, television, operettas, musicale, athletic events |
| 12 | |

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SCIENCE



SCIENCE

The following broad objectives should be basic to any science program in the elementary and secondary schools:

- . To develop an understanding of the world in which we live
- . To instill an appreciation of the world in which we live
- . To develop a workable knowledge of the facts, principles, and concepts of science
- . To develop feeling and skills in using the methods of science
- . To develop a favorable estimate of science for the effect it has on our daily lives
- . To develop a sense of responsibility for the control and conservation of our environment

ELEMENTARY

In the elementary schools, children explore their world and become familiar with simple concepts on which future science learnings can be based. Integration of science with other curriculum areas is implicit in the design of the elementary course of study.

| K | <u>LIVING THINGS</u> | <u>THE UNIVERSE</u> | <u>THE EARTH</u> |
|---|--|-------------------------------------|--------------------|
| . | Pets | The sky | Seasonal changes |
| . | Classification of plants | The sun and stars | Air and weather |
| . | and animals | The moon | Air temperature |
| . | Basic animal needs | Movement of earth | affects life |
| . | Parts of plants | and moon | Changes in surface |
| . | Requirements of plant growth | Astronomy-beyond | of the earth |
| . | Plant and animal adaptations | the solar system | Meteorology and |
| . | Life cycle of insects | Gravitation | climate |
| . | Physical structure of plants | Centrifugal force | Heat |
| . | Human organ systems | Galaxies-constellations | Geology |
| . | Physical structure of animals | Space travel | Changes in state |
| . | <u>MAN'S PLACE IN A CHANGING ENVIRONMENT</u> | <u>PHYSICAL AND CHEMICAL FORCES</u> | |
| . | Requirement for good health | Toys and machines | |
| . | Germs and disease | Magnets | |
| . | Conservation | Chemical and physical changes | |
| . | Balance of nature (ecology) | Sound | |
| . | Communication devices | Electricity | |
| . | Reproduction of animals | Simple machines | |
| . | Reproduction of plants | Static electricity | |
| . | Weather forecasting procedures | Communication devices | |
| . | Weather control | Aircraft | |
| . | Use of new discoveries | Atomic structure | |
| 6 | | Simple periodic chart | |
| | | Physical measurements | |

SECONDARY

In the junior high school, science activities may be organized under broad areas which are based on fundamental problems of importance to the individual and society. At the same time, boys and girls are introduced to science as a specialized area of unique experiences acquired, in part, by laboratory experiments. This science program should serve as a capstone for the elementary-school science as well as prepare the pupils for the senior-high-school science. Science hobbies such as photography, ham radio, bird lore, rock collection, tropical fish, and airplanes can have a valuable place at various levels of the curriculum.

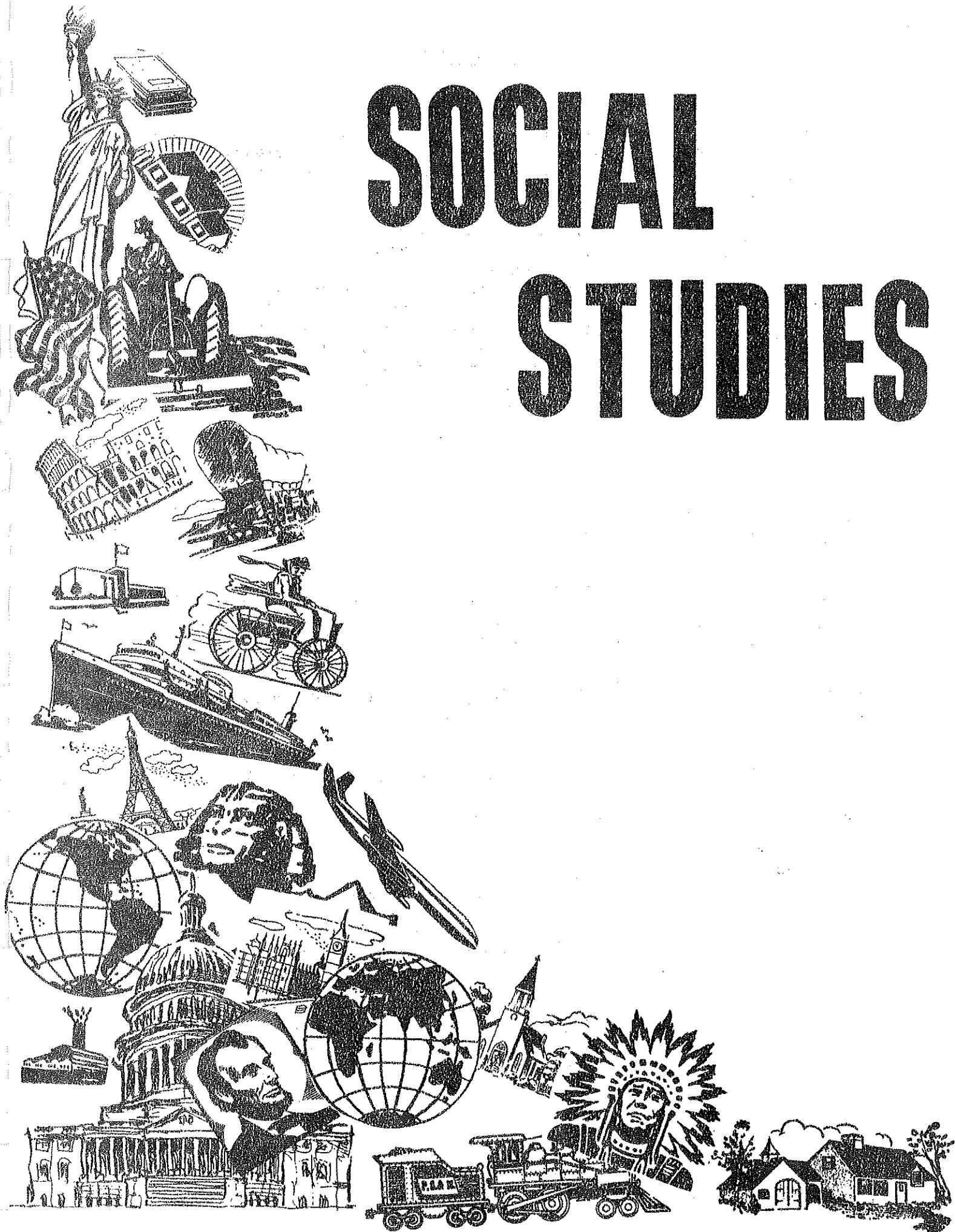
In the senior high school, previous science learning are integrated into major science courses. To provide for differences in ability and interest, courses should be provided for pupils with special aptitudes and interests in addition to those courses provided for all pupils.

| | | | |
|----|---|---|---|
| 7 | <u>MECHANICS</u> Kinds of machines Machine advantages Problems Machine age <u>ENERGY</u> Types Law of conservation of energy Energy forces Transformations <u>PLANTS AND ANIMALS</u> Cell physiology Life cycle Genetics Evolution <u>NEW ENERGY HORIZONS</u> Nuclear energy Solar energy Earth's internal heat Tides and currents | <u>MATTER</u> State of matter Atomic nature Electron theory <u>METEOROLOGY</u> Atomosphere Gases of Temperature changes <u>CHEMISTRY</u> Fire Fuels Industries <u>GEOLOGY</u> Fossils Conservation Wealth of the sea <u>ASTRONOMY</u> The sun; importance Day and night Space frontier | <u>ELECTRICITY</u> Nature of Kinds <u>MEASUREMENTS</u> English and metric system Conversion of systems <u>HUMAN PHYSIOLOGY AND HUMAN BEHAVIOR</u> Man, a complex organism Control mechanisms <u>COMMUNICATION</u> Radio Radar Television Recordings Projection Satellites <u>LIGHT</u> Theories Color Velocity |
| 10 | <u>ADVANCED SCIENCE</u> Biological techniques Qualitative analysis Advanced chemistry Advanced physics Research projects | <u>APPLIED SCIENCE</u> <u>BIOLOGY</u> <u>CHEMISTRY</u> | <u>EARTH SCIENCE</u> <u>PHYSICAL SCIENCE</u> <u>PHYSICS</u> |
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SOCIAL STUDIES



SOCIAL STUDIES

ELEMENTARY

The area of social studies helps the child understand himself in relation to his social and physical environment. Experiences centered around the study of people, places, and events of past and present eras begin in the elementary school and stress:

- . appreciation of our American heritage;
- . citizenship practices necessary to the American way of life involving moral, ethical, and spiritual values;
- . human relations as an important aspect of social learning and living;
- . skills and concepts as a means of developing social understanding;
- . recognition of economic education as it relates to work and workers;
- . understanding of activities in relation to family living;
- . basic knowledge of America and her world neighbors;
- . development of international understanding; and
- . awareness of current affairs.

K

Living in the Immediate Environment

Opportunities to learn about people, places, things, and events

Living Together in Home and School

Child relationships through experiences of work and play, family and friends, food and shelter, holidays and vacation
Child's position in home and school in relation to community

Living in the Neighborhood and Community

Services of people who serve the home, the school, and the neighborhood
Introduction of concepts related to interdependence of people

Expanding Community Life

The home community in relation to other communities within the state, nation, and world
Similarities and differences of communities

Life in Other Communities

Introduction of other cultures which affect or influence our culture
Historical concepts in relation to present geographical factors

Living in the Americas or the Western Hemisphere

Exploration, colonization, independence, growth, and present position of the United States and other countries of South and North America

Life on Other Continents or Eastern Hemisphere

Relationship of the United States to other continents and countries in the field of international understanding, environmental needs, and geographical factors

6

SECONDARY

The social studies is a means of developing social understanding and competence and should contribute to the directed growth of every individual. The social studies curriculum is a field of study which is drawn from the arts, anthropology, religion, language, history, and science. The school is concerned with the development of desirable attitudes and behaviors of each pupil to his highest capacity as an individual personality, as a citizen, and as a voter.

The social studies classroom is a laboratory for citizenship-training activities and provides pupils with opportunities:

- . to relate and adapt himself to a changing world;
- . to make effective decisions as an individual and a citizen;
- . to be sensitive to situations that face people;
- . to master and share knowledge;
- . to build the morale and courage of companions;
- . to act on one's own initiative;
- . to feel and to assume responsibilities;
- . to perceive and solve problems; and
- . to secure a broad background of local and state geographic, historical, and political facts.

American Problems

Social, economic, political

Contemporary Problems

Economics, sociology, foreign policy

Issues that challenge the citizen, local to international in scope

History of United States, American History, Government

The study of the great ideas in our heritage

Chronological study in the nation's growth and development

Our Community and State

Iowa state history, geography and government beginning at the local community level

Problems related to health and safety

Social Studies Seminar and Research

Advanced study, historical and contemporary, of problems of government, intergroup relations and international relations

World Geography--Physical and Economic

The individual in an interdependent world as a worker, a consumer, and a builder

World History

Organized and developed according to culture areas

Critical study of man's disciplines in relation to the various cultures

History of selected eras, peoples, areas, and nations of the world

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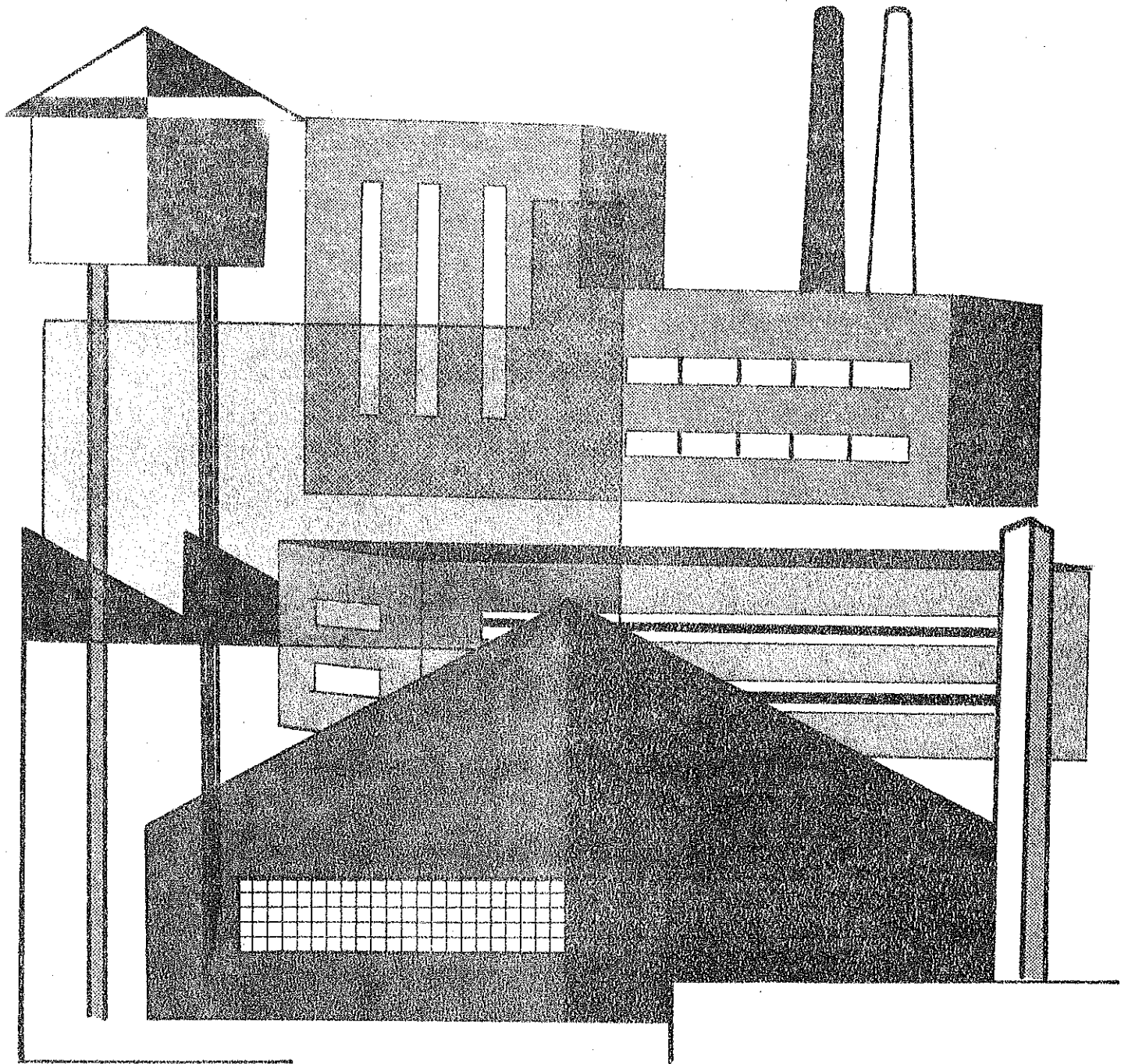
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TRADE & INDUSTRIAL EDUCATION



TRADE AND INDUSTRIAL EDUCATION

Trade and industrial education is a balanced program of studies and work experiences that have the common objective of producing competent workers. There is virtually no limit to the kinds of trade and industrial education programs which may be offered except for the imagination of the educator, the vocational interests of the students, and the needs of industry for a skilled work force. To be effective, such programs must be occupation-centered and provide flexibility that will adapt to time, location, demands, and conditions.

The objective of a trade and industrial education program for in-school youth should be to provide instruction of a preparatory type for the development of basic manipulative skills, safety and job judgment, technical knowledge, and related industrial information for the purpose of fitting persons for advantageous entrance into employment in trade and industrial pursuits.

There are two distinct types of preparatory programs in trade and industrial education for the in-school youth: the day-trade program and the part-time cooperative occupations program.

Day-Trade Program

In the day-trade program, students spend one half of the school day in a shop situation which meets the objectives of their occupational choice and one half of their time in related and academic school subjects.

10

Common Areas of Training

| | |
|--------------------------------------|------------------------------|
| Air conditioning and refrigeration | Electrical trades |
| Auto body rebuilding and refinishing | Electronics-communication- |
| Auto mechanics | industrial |
| Cabinet and millwork | Machine shop |
| Carpentry | Printing |
| Commercial art | Radio and TV service |
| Drafting | Sheet metal working, Welding |

Expected Outcomes of Training

| | | |
|--------------------------|------------------------|-----------------------|
| Apprenticeship entrance | Industrial information | Manipulative skills |
| Attitudes | Job competence | Specialization |
| Employment opportunities | Job judgment | Technical information |
| Employment requirements | Job safety | Theory (occupational) |
| | | Work Habits |

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PART-TIME COOPERATIVE OCCUPATIONS

In the part-time cooperative occupations program, industry and the schools work together to provide vocational training in various industrial occupations. Related and academic instruction is provided by the school during half of the day, and on-the-job training for the acquisition of skills and technical knowledge is provided by industry during the other half of the school day. Thus, the pupil is on the job for an amount of time equal to or exceeding the amount of time spent in the classroom. Such a program demands a close, cooperative working relationship between the businesses (management and workers) in which the pupils are employed and the public school. In this type of program, training for occupations would be limited by the number and types of businesses and industries in the local community which would be willing to employ the pupils for a minimum of 15 hours per week as student learners in industrial occupations.

10

Common Areas of Training

| | |
|--------------------------------------|----------------------------------|
| Air conditioning and refrigeration | Maintenance and service mechanic |
| Airplane mechanic | Masonry |
| Appliance mechanic | Moatcutter |
| Auto body rebuilding and refinishing | Nurseryman |
| Auto mechanic | Partsman |
| Cabinet and millwork | Patternmaker |
| Carpentry | Photographer |
| Commercial art | Plumber and pipe fitter |
| Dental assistant | Printing |
| Drafting | Radio and TV servicing |
| Electrical trades | Sheet metal working |
| Electronics-communication-industrial | Shoe repairman |
| Florist | Sign painter |
| Food processor | Storeroom management |
| Food trades | Tailoring |
| Hospital attendant | Tool and diemaker |
| Laundry and dry cleaning | Upholstering |
| Machine shop | Watch repairman |
| | Welding |

Expected Outcomes of Training

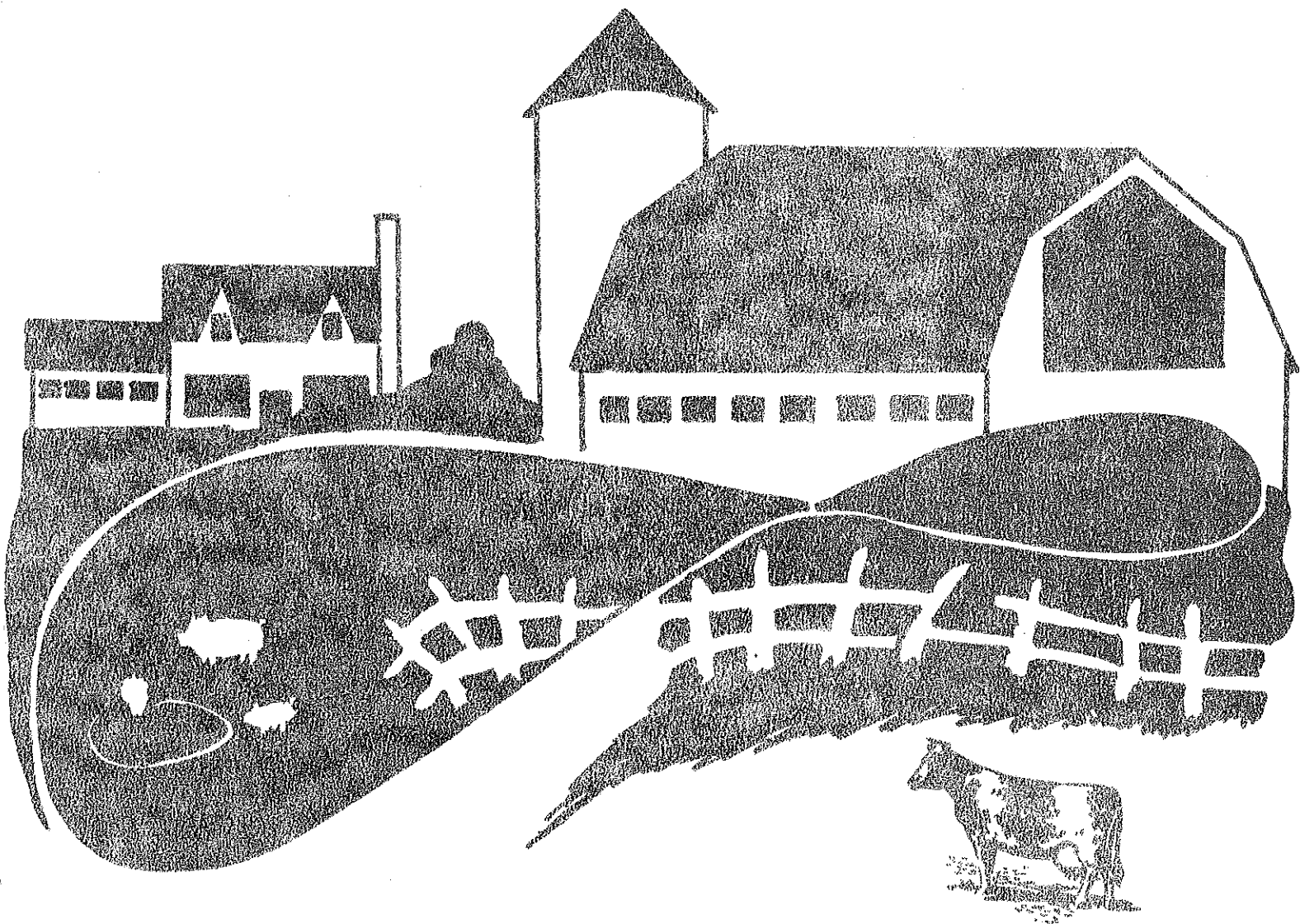
| | | |
|--------------------------|------------------------|-----------------------|
| Apprenticeship entrance | Industrial information | Manipulative skills |
| Attitudes | Job competence | Specialization |
| Employment opportunities | Job judgment | Technical information |
| Employment requirements | Job safety | Theory (occupational) |
| | | Work habits |

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VOCATIONAL AGRICULTURE



VOCATIONAL AGRICULTURE

The vocational agriculture program is designed primarily to meet the needs and interests of persons over fourteen years of age who are farming or plan to do so.

The program is built around actual, practical, and timely agricultural problems of the student. Home farm situations are studied in the classroom, laboratory, farm mechanics shop, and on field trips. Each student conducts a supervised farm program which includes production and improvement projects. Individual, on-farm instruction for each student is provided through the program with parental cooperation.

An integral part of the vocational agriculture program is the Future Farmers of America (FFA). An organization for boys studying vocational agriculture in public secondary schools, the FFA is built on local chapters, state associations, and a national organization. Members learn through participation in a chapter-planned program of work. Degrees of membership are contingent on definite accomplishments in vocational agriculture.

Experiences should be provided in each of the following areas during each of a student's four years in the program. Work varies and becomes more advanced as the student's supervised farmer program expands and progresses. The real problems encountered are the basis for learning.

AREAS OF LEARNING---INCLUDING NATURAL APPLICATION OF RELATED SCIENCE

LIVESTOCK

- Selection
- Genetics
- Nutrition
- Shelter
- Health
- Management of swine, beef, dairy, sheep, poultry common in the school district

CROPS AND SOILS

- Soil management
- Soil and water conservation
- Fertilizers
- Propagation of plants
- Crop management
- Crop storage: corn, small grain, forages, grasses, legumes.
- Pastures, gardens, orchards, landscaping, forestry, wildlife, weed control

FARM MECHANICS

- Skills and their application to potential farm situations
- Repair, use, maintenance and construction of farm machinery, buildings, and equipment
- Farm shop, work skills, farm electrification, soil and water management practices and structures

FARM MANAGEMENT

- Rural economics
- Keeping and using records
- Organizing and conducting a farm business
 - Contracts
 - Insurance
 - Credit
 - Taxation
 - Cooperation
 - Marketing
 - Farm law
- Farm organization
- Rural living

FUTURE FARMERS OF AMERICA

- Operating through a program of work
- Revised annually on basis of student chapter and community needs
- Major divisions
 - Supervised farming
 - Cooperation
 - Community source
 - Leadership
 - Earnings and savings
 - Conduct meeting
 - Scholarship
 - Recreation
 - Public relations
 - State and national activities

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